

### The Nature of Force Type 3

House of Cards:

**Part A:**

Carefully set two playing cards upright on a flat surface so that their top edges lean on each other. The cards should be able to stand by themselves. In terms of balanced forces, describe and sketch a diagram to explain what type of force is acting on the cards and why the cards don't move. Next, exert a force on one of the cards. Describe and sketch a diagram to explain the force acting on the cards and why the cards move.

**Part B:**

Four people are playing tug-of-war:



- 1) What is the net force of the two people on the left exerting? How did you find it?
- 2) What is the net force of the two people on the right exerting? How did you find it?
- 3) In terms of balanced forces, describe the type of force acting on the people and which side will win.

FCA's:

- 1) Part A is answered completely with sketches and logical answers. \_\_\_\_ Points / 20
- 2) Part B is answered completely with evidence provided. \_\_\_\_ Points / 20
- 3) Diagrams and sketches are clearly labeled. \_\_\_\_ Points / 10